

Amendment
U.S. Patent Application Serial No. 09/810,452

REMARKS

Claims 8, 9, 18, and 28 have been canceled without prejudice or disclaimer of the subject matter thereof.

Claims 1, 10, 11, 15, 16, 17, 19, 23, 26, 27, 29, 30, 31, 32, 33, and 34 have been amended.

Claims 1 – 7, 10 – 17, 19 – 27, and 29 – 37 are present in the subject application.

In the Office Action dated July 11, 2005, the Examiner has objected to claims 18 – 19 and 27 – 29 as being dependent upon a rejected base claim, has rejected claims 1, 2, 7, 8, 9, 10, 17, 20, 21, 23, 25, 30, 31, and 32 under 35 U.S.C. §102(e) and has rejected claims 3 – 6, 11 – 16, 22 – 24, 26, and 33 – 37 under 35 U.S.C. §103(a). Favorable reconsideration of the subject application is respectfully requested in view of the following remarks.

Initially, the Examiner has objected to claims 18 – 19 and 27 – 29 as being dependent upon a rejected base claim. The Examiner further indicated that these claims would be allowable if rewritten in independent form. Accordingly, claims 19 and 27 have been rewritten in independent form and are considered to be in condition for allowance.

The Examiner has rejected claims 1, 2, 7, 8, 9, 10, 17, 20, 21, 23, 25, 30, 31, and 32 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,269,404 (Hart et al.). Briefly, the present invention is directed toward an improved user data protocol involving a multi-addressing capability that allows a user at a source node to address a single message to many users at respective destination nodes within a communication network. The multi-address messages that are provided to the network are inserted once at the source node, and messages routed between network nodes going to the same next node travel once across each interconnecting communication channel, thereby minimizing the communication bandwidth consumed.

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The Examiner takes the position that the Hart et al. patent discloses all the features within these claims.

This rejection is respectfully traversed. However, in order to expedite prosecution of the subject application, independent claims 1, 17, 23, 30, and 31 have been amended. Initially, the Examiner has indicated that claims 18 – 19 and 27 - 29 contain patentable subject matter. Accordingly, independent claim 17 has been amended to include the features within canceled claim 18, while independent claim 23 has similarly been amended to include the features of canceled claim 18. Accordingly, claims 17 and 23 are considered to be in condition for allowance.

Independent claims 1, 30, and 31 have been amended to recite the features of the frame or header supporting destination addresses in the form of local home network addresses and extended network addresses indicating networks other than the home network, an extended network identifier selectively included within the frame or header for the destination addresses to identify a network for a corresponding destination address other than the home network and an extended address indicator indicating the presence of the extended network identifier.

The Hart et al. patent does not disclose, teach or suggest these features. Rather, the Hart et al. patent discloses managing network traffic based on automatically setting up a plurality of virtual networks (VNETs) within a single large virtual LAN. Multicast/broadcast traffic is confined to the VNET of the source, without imposing constraints on layer two addressing within the virtual LAN. One method includes transferring a multi-destination packet originating from a particular node in the virtual LAN by tunneling across a connectionless backbone network to a virtual net server. The virtual net server translates the multi-destination packet to a plurality of tunneled messages identifying nodes authorized to receive multi-destination packets from members of a particular

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VNET which originated the packet. The tunneled messages are forwarded from the virtual net server to the authorized nodes (e.g., See Abstract; Column 3, Lines 15 – 22; Column 7, Lines 5 – 12, and 44 – 51; and Column 8, Lines 22 – 33).

Although the Hart et al. patent discloses a network identifier in a packet (e.g., See Column 8, Lines 1 – 6), this identifier is used based on the particular protocol sending the multicast/broadcast packet. In other words, if the protocol employed uses a network identifier, then the network identifier will be present in the protocol specific packet. Otherwise, the network identifier is omitted from the protocol specific packet. There is no disclosure, teaching, or suggestion of selective inclusion for each destination address of a foreign network identifier or, for that matter, supporting local and foreign network addresses in a frame or header and an identifier indicating the presence of a foreign network address as recited in the independent claims. In fact, the Hart et al patent is generally silent with respect to the actual packet header structure beyond the above disclosure.

Since the Hart et al. patent does not disclose, teach, or suggest the features recited in independent claims 1, 30, and 31 as discussed above, these claims are considered to be in condition for allowance.

Claims 2, 7, 10, 20, 21, 25 and 32 depend, either directly or indirectly, from independent claims 1, 17, 23 or 31 and, therefore, include all the features of their parent claims. Since claims 8 - 9 have been canceled as discussed above, the rejection is moot with respect to these claims. Further, claim 10 has been rewritten in dependent form. The dependent claims are considered to be in condition for allowance for substantially the same reasons discussed above in relation to their parent claims and for further limitations recited in the dependent claims.

The Examiner has rejected claim 3 under 35 U.S.C §103(a) as being unpatentable over the

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Hart et al. patent in view of U. S. Patent No. 6,466,608 (Hong et al.). Briefly, the present invention is directed toward an improved user data protocol including a multi-addressing capability as described above.

The Examiner takes the position that the Hart et al. patent discloses all of the subject matter of the claimed invention except for a number hop indicator indicating the number of transmissions of the message across the interconnections network. The Examiner further alleges that the Hong et al. patent discloses this feature and that it would have been obvious to combine the Hong et al. and Hart et al. patents to attain the claimed invention.

This rejection is respectfully traversed. Initially, claim 3 depends, either directly or indirectly, from independent claim 1 and includes all the limitations of its parent claim. As discussed above, the Hart et al. patent does not disclose, teach, or suggest a transmission frame supporting destination node addresses in the form of local home network addresses and extended network addresses indicating networks other than the home network, an extended network identifier selectively included within the frame to identify a network for a corresponding destination address other than the home network and an extended address indicator indicating the presence of the extended network identifier as recited in the claim.

The Hong et al. patent does not compensate for the deficiencies of the Hart et al. patent. Rather, the Hong et al. patent is directed toward providing frequency hopping medium access control among a plurality of nodes in a wireless communications system. The Examiner merely utilizes the Hong et al. patent for an alleged teaching of nodes being identified with channel and frequency and hop number in the network.

Since the Hart et al. and Hong et al. patents, either alone or in combination, do not disclose,

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teach, or suggest the features recited in claim 3 as discussed above, this claim is considered to be in condition for allowance.

The Examiner has rejected claim 4 under 35 U.S.C §103(a) as being unpatentable over the Hart et al. patent in view of U. S. Patent No. 5,517,497 (Le Boudec et al.). Briefly, the present invention is directed toward an improved user data protocol including a multi-addressing capability as described above.

The Examiner takes the position that the Hart et al. patent discloses all of the subject matter of the claimed invention except for indicating a level of priority for scheduling transmission of the message in interconnections network. The Examiner further alleges that the Le Boudec et al. patent teaches this feature and that it would have been obvious to combine the Hart et al. and Le Boudec et al. patents to attain the claimed invention.

This rejection is respectfully traversed. Initially, claim 4 depends, either directly or indirectly, from independent claim 1 and, therefore, includes all the features within its parent claim. As discussed above, the Hart et al. patent does not disclose, teach, or suggest a transmission frame supporting destination node addresses in the form of local home network addresses and extended network addresses indicating networks other than the home network, an extended network identifier selectively included within the frame to identify a network for a corresponding destination address other than the home network and an extended address indicator indicating the presence of the extended network identifier as recited in the claim.

The Le Boudec et al. patent does not compensate for the deficiencies of the Hart et al. patent. Rather, the Le Boudec et al. discloses a connectionless transfer mode for a system using Asynchronous Transfer Mode (ATM) for data transfers. The Examiner merely utilizes the Le

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Boudec et al. patent for an alleged teaching of indicating a level of a priority for scheduling transmission of message information across interconnected networks.

Since the Hart et al. and Le Boudec et al. patents, either alone or in combination, do not disclose, teach, or suggest the features recited in claim 4 as discussed above, this claim is considered to be in condition for allowance.

The Examiner has rejected claims 5 – 6, 12 – 14, 22 and 23 under 35 U.S.C. §103(a) as being unpatentable over the Hart et al. patent in view of U.S. Patent No. 5,809,543 (Byers et al.). Briefly, the present invention is directed toward an improved user data protocol including a multi-addressing capability as described above.

The Examiner takes the position that the Hart et al. patent discloses all of the subject matter of the claimed invention except for a security indicator indicating a level of security of the message and a message delivery status indicator in the network. The Examiner further alleges that the Byers et al. patent teaches these features and that it would have been obvious to combine the Hart et al. and Byers et al. patents to attain the claimed invention.

This rejection is respectfully traversed. Initially, independent claims 17 and 23 have been amended to include patentable features from canceled claim 18 and are considered to be in condition for allowance as discussed above. Claim 22 depends, either directly or indirectly, from independent claim 17 and is similarly considered to be in condition for allowance.

Claims 5 – 6 and 12 – 14 depend, either directly or indirectly, from independent claim 1 and, therefore, include all the features within their parent claim. As discussed above, the Hart et al. patent does not disclose, teach, or suggest a transmission frame supporting destination node addresses in the form of local home network addresses and extended network addresses indicating networks other

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than the home network, an extended network identifier selectively included within the frame to identify a network for a corresponding destination address other than the home network and an extended address indicator indicating the presence of the extended network identifier as recited in the claims.

The Byers et al. patent does not compensate for the deficiencies of the Hart et al. patent. Rather, the Byers et al. patent discloses an outboard file cache extended processing complex for use with a host data processing system for providing closely coupled file caching capability. The Examiner merely utilizes the Byers et al. patent for an alleged teaching of security and delivery status indicators.

Since the Hart et al. and Byers et al. patents, either alone or in combination, do not disclose, teach, or suggest the features recited in claims 5 – 6, 12 – 14, 22, and 23 as discussed above, these claims are considered to be in condition for allowance.

The Examiner has rejected claim 11 under 35 U.S.C. §103(a) as being unpatentable over the Hart et al. patent in view of U.S. Patent No. 6,396,809 (Holden et al.). Briefly, the present invention is directed toward an improved user data protocol including a multi-addressing capability as described above.

The Examiner takes the position that the Hart et al. patent discloses all of the subject matter of the claimed invention except for an end of routing indicator identifying the last address in the transmission frame in a communications network. The Examiner further alleges that the Holden et al. patent teaches these features and that it would have been obvious to combine the Hart et al. and Holden et al. patents to attain the claimed invention.

This rejection is respectfully traversed. Initially, claim 11 has been rewritten in dependent

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form and depends, either directly or indirectly, from independent claim 1. Thus, claim 11 includes all the limitations of its parent claim. As discussed above, the Hart et al. patent does not disclose, teach, or suggest a transmission frame supporting destination node addresses in the form of local home network addresses and extended network addresses indicating networks other than the home network, an extended network identifier selectively included within the frame to identify a network for a corresponding destination address other than the home network and an extended address indicator indicating the presence of the extended network identifier as recited in the claim.

The Holden et al. patent does not compensate for the deficiencies of the Hart et al. patent. Rather, the Holden et al. patent discloses methods and devices useful in high speed scalable switching systems. The Examiner merely utilizes the Holden et al. patent for the alleged teaching of an end of routing indicator in a transmission frame.

Since the Hart et al. and Holden et al. patents, either alone or in combination, do not disclose, teach, or suggest the features recited in claim 11 as discussed above, this claim is considered to be in condition for allowance.

The Examiner has rejected claim 15 under 35 U.S.C. §103(a) as being unpatentable over the Hart et al. patent in view of U.S. Patent No. 5,613,096 (Danknick). Briefly, the present invention is directed toward an improved user data protocol including a multi-addressing capability as described above.

The Examiner takes the position that the Hart et al. patent discloses all of the subject matter of the claimed invention except for an acknowledgement indicator indicating that the message information is printed at one of the addresses in the communications network. The Examiner further alleges that the Danknick patent discloses these features and that it would have been obvious to

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combine the Hart et al. and Danknick patents to attain the claimed invention.

This rejection is respectfully traversed. Initially, claim 15 has been rewritten in dependent form and depends, either directly or indirectly, from independent claim 1. Thus, claim 15 includes all of the limitations of its parent claim. As discussed above, the Hart et al. patent does not disclose, teach, or suggest the features of a transmission frame supporting destination node addresses in the form of local home network addresses and extended network addresses indicating networks other than the home network, an extended network identifier selectively included within the frame to identify a network for a corresponding destination address other than the home network and an extended address indicator indicating the presence of the extended network identifier as recited in the claim.

The Danknick patent does not compensate for the deficiencies of the Hart et al. patent. Rather, the Danknick patent discloses a method of determining which of plural protocols are active on a computerized local area network. The Examiner merely utilizes the Danknick patent for the alleged teaching of an acknowledgement indicator indicating that message information is printed at a network address.

Since the Hart et al. and Danknick patents, either alone or in combination, do not disclose, teach, or suggest the features recited in claim 15 as discussed above, this claim is considered to be in condition for allowance.

The Examiner has rejected claim 26 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,356,553 (Nagami et al.) in view of U.S. Patent No. 5,946,679 (Ahuja et al.). This rejection is respectfully traversed. However, in order to expedite prosecution of the subject application, independent claim 26 has been amended to include the features of canceled claim 28

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which the Examiner indicated contains patentable subject matter. Accordingly, claim 26 is considered to be in condition for allowance. Claim 29 has been amended to depend from claim 26 and is similarly considered to be in condition for allowance.

The Examiner has rejected claims 16, 24, and 33 under 35 U.S.C §103(a) as being unpatentable over the Hart et al. patent. Briefly, the present invention is directed toward an improved user data protocol including a multi-addressing capability as described above.

The Examiner takes the position that the Hart et al. patent discloses all of the subject matter of the claimed invention except for a program product apparatus (claim 33) and using a radio transmitter (claims 16 and 24). The Examiner further alleges that these features are well known in the art and that it would have been obvious to modify the Hart et al. patent to attain the claimed invention.

This rejection is respectfully traversed. Initially, claim 16 has been amended to depend from independent claim 1 and, therefore, includes all the limitations of its parent claim. As discussed above, the Hart et al. patent does not disclose, teach, or suggest the features of a transmission frame supporting destination node addresses in the form of local home network addresses and extended network addresses indicating networks other than the home network, an extended network identifier selectively included within the frame to identify a network for a corresponding destination address other than the home network and an extended address indicator indicating the presence of the extended network identifier as recited in the claim. Accordingly, claim 16 is considered to be in condition for allowance.

With respect to claims 24 and 33, claim 24 depends from independent claim 23 and, therefore, includes all of the limitations of its parent claim. Since claim 23 includes the patentable

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subject matter of canceled claim 18 and is considered to be in condition for allowance as discussed above, dependent claim 24 is similarly considered to be in condition for allowance. In order to expedite prosecution of the subject application, independent claim 33 has been amended to include features substantially similar to the patentable features within canceled claim 18. Accordingly, claim 33 is considered to be in condition for allowance.

The Examiner has rejected claims 34 – 37 under 35 U.S.C §103(a) as being unpatentable over U. S. Patent No. 5,570,202 (Shishido et al.) in view of the Hart et al. patent. Briefly, the present invention is directed toward an improved user data protocol including a multi-addressing capability as described above.

The Examiner takes the position that the Shishido et al. patent discloses all of the subject matter of the claimed invention except for each frame having a plurality of destination addresses in a communications network. The Examiner further alleges that the Hart et al. patent teaches this feature and that it would have been obvious to combine the Shishido et al. and Hart et al. patents to attain the claimed invention.

This rejection is respectfully traversed. However, in order to expedite prosecution of the subject application, independent claim 34 has been amended to recite the features of a frame supporting addresses in the form of local home network addresses and extended network addresses indicating networks other than the home network, an extended network identifier selectively included within the frame to identify a network for a corresponding destination other than the home network and an extended address indicator indicating the presence of the extended network identifier.

The Shishido et al. patent does not disclose, teach, or suggest these features. Rather, the

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Shishido et al. patent discloses an image transmission apparatus where the order of pixel data is converted on a frame by frame basis to produce a prescribed combination of pixel data. In order to construct frames, sequence numbers representing the order of the frames are attached to respective frame data, each composed of a plurality of pixel data. The frames are transmitted to the transmission line. On the receiving side, the sequence numbers of the frames received from the transmission line are checked to detect a missing frame. Pixel data of the missing frame is replaced by those of a frame having a sequence number immediately before that of a missing frame. An image is reconstructed by inversely converting the order of the pixel data which includes replaced pixel data (e.g., See Abstract). Thus, the Shishido et al. patent is directed toward acquiring image pixel data sent over a transmission line. There is no disclosure, teaching, or suggestion of the features of the frame supporting addresses in the form of local home network addresses and extended network addresses indicating networks other than the home network, an extended network identifier selectively included within the frame to identify a network for corresponding destination other than the home network and an extended address indicator indicating the presence of the extended network identifier as recited in the claim.

As discussed above, the Hart et al. patent does not compensate for the deficiencies of the Shishido et al. patent and similarly does not disclose, teach, or suggest these features.

Since the Shishido et al. and Hart et al. patents, either alone or in combination, do not disclose, teach, or suggest the features recited in independent claim 34 as discussed above, this claim is considered to be in condition for allowance.

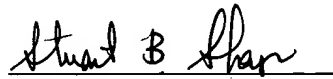
Claims 35 – 37 depend, either directly or indirectly, from independent claim 34 and, therefore, include all the limitations of their parent claim. These claims are considered to be in

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condition for allowance for substantially the same reasons discussed above in relation to their parent claim and for further limitations recited in the dependent claims.

The application, having been shown to overcome issues raised in the Office Action, is considered to be in condition for allowance and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Stuart B. Shapiro", is written over a horizontal line.

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